

PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Shigeyuki HAMAYOSHI, et al.      Docket No: Q95337

Appln. No.: 10/596,362      Group Art Unit: 1734

Confirmation No.: 5666      Examiner: Not Yet Assigned

Filed: June 9, 2006

For: ROLL FOR USE IN GALVANIZING POT

**SUBMISSION OF CHINESE OFFICE ACTION AND TRANSLATION**

**MAIL STOP AMENDMENT**

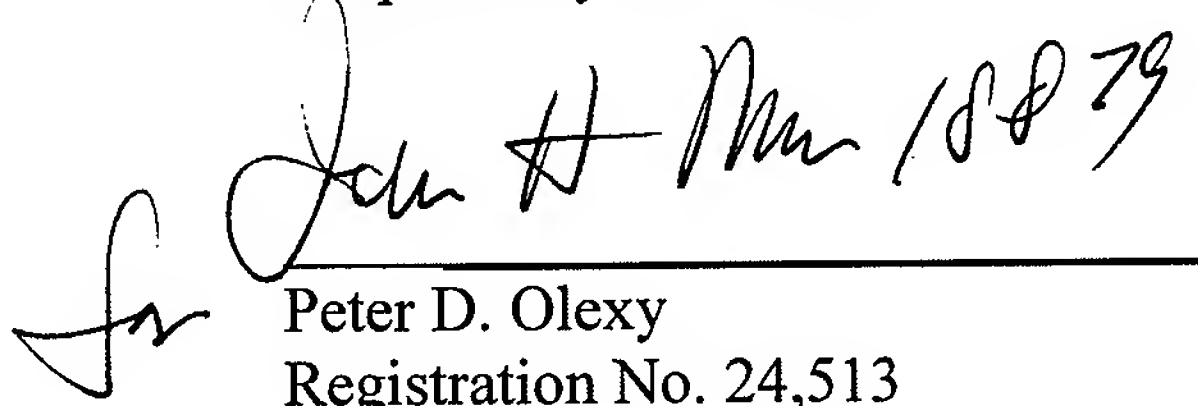
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

For the Examiner's convenience, enclosed herewith is a copy of a Chinese Office Action and English translation thereof. Copies of the cited references have previously been submitted with the Information Discloser Statement filed June 21, 2006.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: November 6, 2008

# State Intellectual Property Office of People's Republic of China

Add: 25/F., Bldg.B, Tsinghua Tongfang Hi-Tech Plaza, No.1, Wangzhuang Rd.,  
Haidian District, Beijing , P. R. China, Postal Code:100083

Applicant	Hitachi Metals,Ltd.	Issuing Date: <b>August 29, 2008</b>
Patent Agent	Guiliang LI	
Application No.	200480036417.8	
Title of Invention	熔融金属镀浴用辊子	

## FIRST OFFICE ACTION

(For PCT Application Entering the National Phase)

1. ☒ The applicant has filed a request for substantive examination on \_\_\_\_\_. The examiner has carried out substantive examination on the above mentioned patent application for invention in accordance with the provisions of Article 35(1) of the Chinese Patent Law.
- ☐ The Patent Office has decided to carry out a substantive examination on the above mentioned patent application for invention in accordance with the provisions of Article 35(2) of the Chinese Patent Law.
2. ☒ The applicant claimed:  
The filing date 2003.12.11 in the Japan Patent Office as the priority date,  
The filing date \_\_\_\_\_ in the \_\_\_\_\_ Patent Office as the priority date, and  
The filing date \_\_\_\_\_ in the \_\_\_\_\_ Patent Office as the priority date.
3. ☐ The following amended document(s) submitted by the applicant is (are) unacceptable, as the document(s) is(are) not in conformity with the provisions of Article 33 of the Chinese Patent Law:
- ☐ The Chinese translation of the annexes of the International Preliminary Examination Report,  
☐ The Chinese translation of the amendment submitted under Article 19 of the Patent Cooperation Treaty,  
☐ The Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty,  
☐ The amendment submitted in accordance with Rule 51 of the Implementing Regulations of the Chinese Patent Law.
- The detailed reasons for the amendments being unacceptable is described in the text of this office action.
4. ☒ The examination was carried out based on the Chinese translation of the international application as originally filed.
- ☐ The examination was carried out on the basis of the following application documents:
- ☐ The description  
Pages \_\_\_\_\_, the Chinese translation of the international application as originally filed;  
Pages \_\_\_\_\_, the Chinese translation of the annexes of the International Preliminary Examination Report;  
Pages \_\_\_\_\_, the Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty;  
Pages \_\_\_\_\_, amendment submitted according to Rule 51 of the Implementing Regulations of the Chinese Patent Law.

☐ The claims

Nos.\_\_\_\_\_, the Chinese translation of the international application as originally filed;

Nos.\_\_\_\_\_, the Chinese translation of the amendment submitted under Article 19 of the Patent Cooperation Treaty.

Nos.\_\_\_\_\_, the Chinese translation of the annexes of the International Preliminary Examination Report;

Nos.\_\_\_\_\_, the Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty;

Nos.\_\_\_\_\_, amendment submitted according to Rule 51 of the Implementing Regulations of the Chinese Patent Law.

☐ The drawings

Pages\_\_\_\_\_, the Chinese translation of the international application as originally filed;

Pages\_\_\_\_\_, the Chinese translation of the annexes of the International Preliminary Examination Report;

Pages\_\_\_\_\_, the Chinese translation of the amendment submitted under Article 28 or 41 of the Patent Cooperation Treaty;

Pages\_\_\_\_\_, amendment submitted according to Rule 51 of the Implementing Regulations of the Chinese Patent Law.

5. ☒ The following reference documents have been cited in this office action(their serial numbers will be referred to in the ensuing examination procedure):

Serial No.	Reference document( Number or Title)	Publication Date (or Filing date of interference patent applications)
1	JP 特开 2002-161346A	2002-06-04
2	JP 特开 2001-335368A	2001-12-04
3	JP 特开平 5-306441A	1993-11-19
4	JP 特开 2001-89837A	2001-04-03

6. The result of the examination is as follows:

☐ Description:

☐ The subject matter of the application falls into the scope on which no patent right shall be granted as provided by Article 5 of the Chinese Patent Law.

☐ The description is not in conformity with the provisions of Article 26(3) of the Chinese Patent Law.

☐ The description is not in conformity with the provisions of Rule 18 or 19 of the Implementing Regulations of the Chinese Patent Law.

☒ Claims:

☐ Claim \_\_\_\_\_ falls into the scope within which no patent right shall be granted as provided by Article 25 of the Chinese Patent Law

☐ Claim \_\_\_\_\_ does not possess novelty as provided by Article 22(2) of the Chinese Patent Law.

☒ Claims 1-6 do not possess inventiveness as provided by Article 22(3) of the Chinese Patent Law.

☐ Claim \_\_\_\_\_ does not possess practical applicability as provided by Article 22(4) of the Chinese Patent Law.

☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Article 26(4) of the Chinese Patent Law.

☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Article 31(1) of the Chinese Patent Law.

- ☒ Claim 4 is not in conformity with the provisions of Rule 20 of the Implementing Regulations of the Chinese Patent Law.
- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Rule 21 of the Implementing Regulations of the Chinese Patent Law.
- ☒ Claims 4-5, 7, 9-12 are not in conformity with the provisions of Rule 23 of the Implementing Regulations of the Chinese Patent Law.
- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Article 9 of the Chinese Patent Law.
- ☐ Claim \_\_\_\_\_ is not in conformity with the provisions of Rule 12(1) of the Implementing Regulations of the Chinese Patent Law.
- ☐

The detail analysis for above conclusive opinion is described in the text of this office action.

7. On the basis of the above conclusive opinion, the examiner holds that:

- ☐ The applicant should make amendments as required in the text of this office action.
- ☒ The applicant should provide reasons for that the above mentioned patent application can be granted the patent right, and make amendments to the specification which is not in conformity with the provisions as described in text of this office action; otherwise the patent right shall not be granted.
- ☐ The patent application does not possess any substantive patentable contents, if the applicant fails to provide reasons or the reasons provided are not sufficient, this application will be rejected.
- ☐

8. The applicant's attention is drawn to the following matters:

- (1) In accordance with the provisions of Article 37 of the Chinese Patent Law, the applicant shall submit a response within four months from the receipt of this office action. If the applicant fails to meet the time limit without any justified reason, the application shall be deemed to be withdrawn.
- (2) The amendment made by the applicant shall be in conformity with the provisions of Article 33 of the Chinese Patent Law. The amended documents shall be submitted in duplicate and in the format required by the relevant provisions of the Examination Guideline.
- (3) The applicant's response and/or amended documents shall be mailed or submitted to the Receiving Department of the Chinese Patent Office. Documents which are not mailed or submitted to the Receiving Department do not possess legal effect.
- (4) The applicant and/or his (its) agent shall not come to the Chinese Patent Office for interview with the examiner without an appointment.

9. The text of this office action consists of a total of 2 sheets, and is accompanied by the following annexes:

- ☒ A copy of cited reference documents consisting of 4 sets and 21 sheets.
- ☐

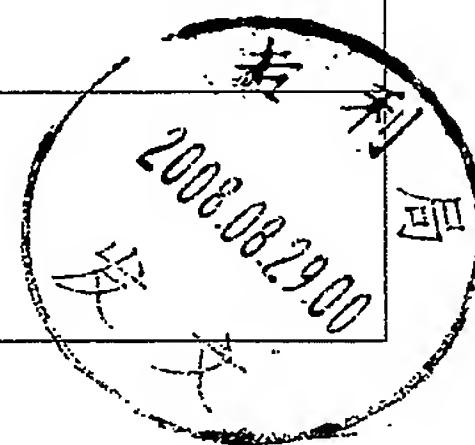
The \_\_\_\_\_ Examination Department

The Seal of the Examiner: Xiaoliang FU



# 中华人民共和国国家知识产权局

100083 北京市海淀区王庄路1号清华同方科技大厦B座25层 中科专利商标代理有限责任公司 李贵亮	发文日
申请号: 2004800364178	
申请人: 日立金属株式会社	
发明名称: 熔融金属镀浴用辊子	



## 第一次审查意见通知书

(进入国家阶段的 PCT 申请)

- ☒ 应申请人提出的实审请求, 根据专利法第 35 条第 1 款的规定, 国家知识产权局对上述发明专利申请进行实质审查。  
☐ 根据专利法第 35 条第 2 款的规定, 国家知识产权局专利局决定自行对上述发明专利申请进行审查。
- ☒ 申请人要求以在:  
JP 专利局的申请日 2003 年 12 月 11 日为优先权日,  
专利局的申请日 年 月 日为优先权日,  
专利局的申请日 年 月 日为优先权日。
- ☐ 申请人于 年 月 日和 年 月 日以及 年 月 日提交了修改文件。  
经审查, 申请人于 年 月 日提交的 不符合专利法实施细则第 51 条第 1 款的规定。  
☐
- ☒ 审查是针对原始提交的国际申请的中文译文进行的。  
☐ 审查是针对下述申请文件进行的:  
☐ 说明书 第 页, 按照进入中国国家阶段时提交的国际申请文件的中文文本;  
第 页, 按照专利性国际初步报告附件的中文文本;  
第 页, 按照依据专利合作条约第 28 条或 41 条规定所提交的修改文件;  
第 页, 按照依据专利法实施细则第 51 条第 1 款规定所提交的修改文件;  
第 页, 按照 年 月 日所提交的修改文件。  
☐  
☐ 权利要求 第 项, 按照进入中国国家阶段时提交的国际申请文件的中文文本;  
第 项, 按照依据专利合作条约第 19 条规定所提交的修改文件的中文文本;  
第 项, 按照专利性国际初步报告附件的中文文本;  
第 项, 按照依据专利合作条约第 28 条或 41 条规定所提交的修改文件;  
第 项, 按照依据专利法实施细则第 51 条第 1 款规定所提交的修改文件;  
第 项, 按照 年 月 日所提交的修改文件。  
☐  
☐ 附图 第 页, 按照进入中国国家阶段时提交的国际申请文件的中文文本;  
第 页, 按照专利性国际初步报告附件的中文文本;  
第 页, 按照依据专利合作条约第 28 条或 41 条规定所提交的修改文件;  
第 页, 按照依据专利法实施细则第 51 条第 1 款规定所提交的修改文件;  
第 页, 按照 年 月 日所提交的修改文件。





☐

☒本通知书引用下述对比文件(其编号在今后的审查过程中继续沿用):

编号	文件号或名称	公开日期 (或抵触申请的申请日)
1	JP 特开 2002-161346A	2002-06-04
2	JP 特开 2001-335368A	2001-12-04
3	JP 特开平 5-306441A	1993-11-19
4	JP 特开 2001-89837A	2001-04-03

5. 审查的结论性意见:

☐关于说明书:

- ☐申请的内容属于专利法第 5 条规定的不予授予专利权的范围。
- ☐说明书不符合专利法第 26 条第 3 款的规定。
- ☐说明书不符合专利法第 33 条的规定。
- ☐说明书的撰写不符合专利法实施细则第 18 条的规定。

☒关于权利要求书:

- ☐权利要求 不具备专利法第 22 条第 2 款规定的新颖性。
- ☒权利要求 1-6 不具备专利法第 22 条第 3 款规定的创造性。
- ☐权利要求 不具备专利法第 22 条第 4 款规定的实用性。
- ☐权利要求 属于专利法第 25 条规定的不予授予专利权的范围。
- ☐权利要求 不符合专利法第 26 条第 4 款的规定。
- ☐权利要求 不符合专利法第 31 条第 1 款的规定。
- ☐权利要求 不符合专利法第 33 条的规定。
- ☐权利要求 不符合专利法实施细则第 2 条第 1 款的规定。
- ☐权利要求 不符合专利法实施细则第 13 条第 1 款的规定。
- ☒权利要求 4 不符合专利法实施细则第 20 条的规定。
- ☐权利要求 不符合专利法实施细则第 21 条的规定。
- ☐权利要求 不符合专利法实施细则第 22 条的规定。
- ☒权利要求 4-5、7、9-12 不符合专利法实施细则第 23 条的规定。

☐分案的申请不符合专利法实施细则第 43 条第 1 款的规定。

上述结论性意见的具体分析见本通知书的正文部分。

6. 基于上述结论性意见, 审查员认为:

- ☐申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。
- ☒申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。
- ☐专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。

7. 申请人应注意下述事项:

- (1) 根据专利法第 37 条的规定, 申请人应在收到本通知书之日起的肆个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。
- (2) 申请人对其申请的修改应符合专利法第 33 条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。
- (3) 申请人的意见陈述书和 / 或修改文本应邮寄或递交国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。
- (4) 未经预约, 申请人和 / 或代理人不得前来国家知识产权局专利局与审查员举行会晤。

8. 本通知书正文部分共有 2 页, 并附有下列附件:

☒引用的对比文件的复印件共 4 份 21 页。

☐

审查员: 傅晓亮(9973)

审查部门

审查协作中心

2008 年 8 月 11 日



## 第一次审查意见通知书正文

申请号：2004800364178

本申请涉及一种熔融金属镀浴用辊子。经审查，现提出如下审查意见。

1. 权利要求1-6不具备专利法第二十二条第三款规定的创造性。

(1) 权利要求1请求保护一种熔融金属镀浴用辊子。对比文件1(JP特开2001-89837A)公开一种熔融金属镀浴用辊子，并具体公开(参见对比文件1说明书第0021段~第0029段、图2)：由与钢板接触的中空状主体部7和与所述主体部接合的轴部8构成，氮化硅系陶瓷分别形成中空状的辊子主体部7和轴部8，轴部8上的凸起部81与主体部7上的71接合。

权利要求1与对比文件1相比，其区别在于：①其中，至少所述主体部由常温下的热导率为 $50\text{W}/(\text{m}\cdot\text{K})$ 以上的氮化硅系陶瓷构成；②所述主体部的平均表面粗糙度 $R_a$ 为 $1\sim 20\mu\text{m}$ 。相对于①，本发明实际解决的技术问题是如何提高氮化硅系陶瓷的耐热冲击性，对比文件2(JP特开2001-335368A)公开一种高热传导率的氮化硅系陶瓷材料，并具体公开(参见对比文件2说明书第0012~0017段)：降低了作为杂质而存在铝和氧的含有量，提高热传导率，热传导率为 $70\text{W}/(\text{m}\cdot\text{K})$ 以上，常温下4点弯曲强度为 $600\text{MPa}$ 以上，可见上述特征已被对比文件2公开，且其在对比文件2中所起的作用与本发明一致，即提高氮化硅系陶瓷材料的耐热冲击性；相对于②，本发明实际解决的技术问题是如何防止辊子与钢板打滑，对比文件3(JP特开平5-306441A)公开一种熔融金属镀浴用辊子，并具体公开(参见对比文件3说明书第0008段)：辊子的表面粗糙度 $R_a$   $2.0\sim 8.0\mu\text{m}$ ，以提高钢板与辊子的接触力以防止打滑的同时避免擦伤，可见上述特征已被对比文件3公开，且其在对比文件3中所起的作用与本发明一致，即提高接触力以防止打滑的同时避免出现擦伤。由此可见在对比文件1的基础上结合对比文件2及对比文件3，得到权利要求1所请求保护的技术方案，对本领域技术人员而言是显而易见的。因此权利要求1不具备突出的实质性特点，因而权利要求1不具备创造性，不符合专利法第二十二条第三款的规定。

(2) 权利要求2是权利要求1的从属权利要求，其附加技术特征进一步限定氮化硅系陶瓷的含量。对比文件2公开(参见对比文件2说明书第0014~0017段)：氧含量为 $1.5\text{wt}\%$ 以下，含铝的不纯物含量为 $1\text{wt}\%$ 以下。因此在权利要求1不具备创造性的情况下，其从属权利要求2也不具备创造性，不符合专利法第二十二条第三款的规定。

(3) 权利要求3-4在权利要求1-2的基础上，其附加技术特征进一步限定辊子的性能参数。但这是本领域技术人员通过合乎逻辑的分析、推理或者有限次试验就能够得到的。因此在权利要求1-2不具备创造性的情况下，权利要求3-4也不具备创造性，不符合专利法第二十二条第三款的规定。

(4) 权利要求5是权利要求1-4的从属权利要求，其附加技术特征进一步限定辊子

的结构。对比文件1公开(参见对比文件1附图2)：主体部分的内面由两端侧的大径区域71和中央的小径区域构成，轴部具有凸起部81(相当于权利要求5中的轴部的大径部)、凸缘部和小径部，轴部上的凸起部81与主体部上的71接合。因此在权利要求1-4不具备创造性的情况下，其从属权利要求5也不具备创造性，不符合专利法第二十二条第三款的规定。

(5) 权利要求6是权利要求5的从属权利要求，其附加技术特征进一步限定辊的结构。对比文件4(JP特开2001-89837A)公开一种熔融金属镀浴用辊子，并具体公开(参见对比文件4说明书第0022~0024段、附图2)：在轴部上形成有多道穿过轴部的大径部的槽部，在轴部与主体部接合的状态下，槽部形成与辊子内部形成连通的孔10a、11a以排出熔融金属。孔10a、11a作用与本申请形成的孔的作用是一致的，均是用于排出熔融金属。在此基础上本领域技术人员通过合乎逻辑的分析、推理是能够将槽的长度延长直至穿过凸缘部的长度方向。由此可见，在权利要求5不具备创造性的情况下，其从属权利要求6也不具备创造性，不符合专利法第二十二条第三款的规定。

## 2. 权利要求4不符合专利法实施细则第二十条第一款的规定。

权利要求4将对权利要求有实质性限定作用的“以R……来表示”置于括号中，造成权利要求保护范围不清楚；

权利要求4在非结尾处“表示。”使用句号，造成权利要求保护范围不清楚，

因此权利要求4保护范围不清楚，不符合专利法实施细则第二十条第一款的规定。

## 3. 权利要求4-5、7、9-12不符合专利法实施细则第二十条第一款的规定。

从属权利要求4本身是一个多项从属权利要求，它引用了在前的多项从属权利要求3，因此不符合专利法实施细则第二十三条第二款的规定。

同理权利要求5、7、9-12也存在上述问题，不符合专利法实施细则第二十三条第二款的规定。

基于上述理由，本申请目前的文本不能被授予专利权，申请人应当在本通知书指定的答复期限内对本通知书所提出的上述各项意见陈述有说服力的理由，并提交消除缺陷的权利要求书，修改时应满足专利法第三十三条的规定，不得超出原说明书和权利要求书的记载范围。申请人应提供修改所涉及的原文复印件，并将修改之处标示清楚。申请人如有疑问之处，可与审查员联系。

审查员：傅晓亮

代码：9973

电话：010-62413871